

## CLAIMS

What is claimed is:

1. A sealant coating to seal and coat stucco, said sealant coating comprising:  
water;  
ceramic microspheres;  
polymeric microspheres; and  
a resin binder.
2. A sealant coating as claimed in claim 1 wherein said ceramic microspheres comprise a multiplicity of hollow ceramic shells having diameters of at least 100  $\mu\text{m}$ .
3. A sealant coating as claimed in claim 2 wherein said hollow ceramic shells have diameters of 120-150  $\mu\text{m}$ .
4. A sealant coating as claimed in claim 1 wherein said polymeric microspheres comprise a multiplicity of hollow polymeric shells having diameters of 25-60  $\mu\text{m}$ .
5. A system as claimed in claim 4 wherein each of said hollow polymeric shells is formed of vinylidene chloride and acrylonitrile.
6. A sealant coating as claimed in claim 1 wherein said resin binder comprises an aqueous copolymer emulsion.

7. A sealant coating as claimed in claim 6 wherein said aqueous copolymer emulsion comprises:

styrene monomers; and  
acrylic monomers.

8. A sealant coating as claimed in claim 1 additionally comprising:

a polyol;  
an ester alcohol;  
a defoamer;  
a pigment;  
a polysiloxane emulsion;  
a dispersant;  
a surfactant;  
a pH adjuster;  
a preservative; and  
a thickener.

9. A sealant coating as claimed in claim 8 wherein said polyol comprises diethylene glycol.

10. A sealant coating as claimed in claim 8 wherein said pigment comprises a white hiding pigment

11. A sealant coating as claimed in claim 10 wherein said white hiding pigment comprises titanium dioxide.

12. A sealant coating as claimed in claim 8 wherein said pH adjuster comprises monoethanolamine.

13. A sealant coating as claimed in claim 8 wherein said antimicrobial preservative comprises dimethyloldimethyldantoin.

14. A sealant coating as claimed in claim 8 wherein said thickener comprises a cellulosic thickener.

15. A method for the production of a sealant coating for stucco, said method comprising:

- a) charging a mixer with water;
- b) adding ceramic microspheres to said mixer;
- c) adding polymeric microspheres to said mixer;
- d) adding a resin binder to said mixer;
- e) mixing said water, said ceramic microspheres, said polymeric microspheres, and said resin binder to produce said sealant coating.

16. A method as claimed in claim 15 wherein:

after said charging activity a) and prior to said adding activity b), said method additionally comprises:

- f) adding a polyol to said mixer;
- g) adding a dispersant to said mixer;
- h) adding a surfactant to said mixer;
- i) adding a first quantity of a defoamer to said mixer;
- j) adding a thickener to said mixer; and
- k) adding a pH adjuster to said mixer;

said adding activity b) adds a first quantity of said ceramic microspheres to said mixer;

after said adding activity b)) and prior to said adding activity c), said method additionally comprises:

- l) adding a quantity of a pigment to said mixer;

after said adding activity c) and prior to said adding activity d), said method additionally comprises:

- m) adding a preservative to said mixer; and

after said adding activity d) and prior to said mixing activity e), said method additionally comprises:

- n) adding an ester alcohol to said mixer;
- o) adding a polysiloxane emulsion to said mixer;
- p) adding a second quantity of said ceramic microspheres to said mixer; and
- q) adding a second quantity of said defoamer to said mixer.

17. A method as claimed in claim 16 wherein:  
said method additionally comprises obtaining said mixer;  
prior to said adding activity f), said method additionally  
comprises setting said mixer to a first speed;  
after said adding activity j) and prior to said adding  
activity k), said method additionally comprises adjusting said  
mixer from said first speed to a second speed;  
during said adding activity b), said method additionally  
comprises adjusting said mixer from said second speed to a third  
speed;  
after said adding activity b), said method additionally  
comprises mixing contents of said mixer at said third speed to  
produce an intermediate slurry;  
after said adding activity d) and prior to said adding  
activity n), said method additionally comprises adjusting said  
mixer from said third speed to a fourth speed;  
during said adding activity p), said method additionally  
comprises adjusting said mixer from said fourth speed to a fifth  
speed; and  
after said adding activity p), said method additionally  
comprises mixing contents of said mixer at said fifth speed to  
produce said sealant coating.

18. A method as claimed in claim 17 wherein:  
said first speed is less than said second speed;  
said second speed is less than said third speed;  
said third speed is greater than said fourth speed; and  
said fourth speed is less than said fifth speed.

19. A system to seal and coat stucco, said system comprising:  
a substantially waterproof and breathable sealant coating  
applied over said stucco; and  
a water-resistant acrylic paint applied over said stucco  
after application of said sealant coating.

20. A system as claimed in claim 19 additionally comprising a  
water-repellent preconditioner applied over said stucco before  
application of said sealant coating.

21. A system as claimed in claim 20 wherein said  
preconditioner comprises:  
water;  
an acrylic primer; and  
a water-repellent silicate solution configured to bond with  
cement within said stucco.

22. A system as claimed in claim 21 wherein said silicate  
solution is an aqueous sodium methyl silicate solution.

23. A system as claimed in claim 19 wherein said sealant coating comprises:

- water;
- a polyol comprising diethylene glycol;
- a dispersant;
- a surfactant;
- a defoamer;
- a cellulosic thickener;
- a pH adjuster comprising monoethanolamine;
- ceramic microspheres comprising a multiplicity of hollow ceramic shells having diameters of 120-150  $\mu\text{m}$ ;
- a white hiding pigment comprising titanium dioxide;
- polymeric microspheres comprising a multiplicity of hollow polymeric shells having diameters of 20-60  $\mu\text{m}$ ;
- an antimicrobial preservative comprising dimethyloldimethyldantoin;
- a resin binder comprising an aqueous copolymer emulsion.
- an aqueous styrene acrylic copolymer emulsion;
- an ester alcohol; and
- a polysiloxane emulsion.